

OIPE

RAW SEQUENCE LISTING

106

DATE: 04/25/2002

PATENT APPLICATION: US/10/032,106

TIME: 15:14:47

Input Set : A:\43311-20007.00.txt

Output Set: N:\CRF3\04252002\J032106.raw

ENTERED

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4 <110> APPLICANT: Peng, Zaoyuan
             Yu, Zailin
              Wiley, Andrew
      6
              Hu, Qianjin
      9 <120> TITLE OF INVENTION: METHODS FOR IDENTIFYING G-PROTEIN
     10
             COUPLED RECEPTORS ASSOCIATED WITH DISEASES
     13 <130> FILE REFERENCE: 433112000700
     15 <140> CURRENT APPLICATION NUMBER: US 10/032,106
C--> 16 <141> CURRENT FILING DATE: 2002-04-08
     18 <150> PRIOR APPLICATION NUMBER: US 60/258,070
    19 <151> PRIOR FILING DATE: 2000-12-20
     21 <160> NUMBER OF SEQ ID NOS: 10
     23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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     27 <212> TYPE: DNA
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     32 tggcaagttc tcttcttcat catctttctt gtggtctaca tcatcaccat ggtgggcaat
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                                                                               180
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     34 ctcagtcact tgtcatttgt tgatgtgtgg ttttcttcca atgtcacccc taaaatgttg
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                                                                               300
     35 qaaaacctqt tttcagataa aaaaacaatt acttatgctg gttgtttagt acagtgtttc
                                                                               360
     36 ttottcattq ctottqtoca tgtqgaaatt tttattottg ctgcgatggo otttgataga
                                                                               420
     37 tacatggcaa ttgggaatcc tctgctttat ggcagtaaaa tgtcaagggt tgtctgtatt
                                                                               480
     38 cqactqatta ctttccctta catttatggt tttctgacga gtctggcagc aacattatgg
     39 acttacggct tgtacttctg tggaaaaatt gagatcaacc atttctactg tgcagatcca
                                                                               540
                                                                               600
     40 cctctcatca aaatggcctg tgccgggacc tttgtaaaag aatatacaat gatcatactt
     41 gccggcatta acttcacata ttccctgact gtaattatca tctcttactt attcatcctc
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                                                                               720
     42 attgccattc tgcgaatgcg ctcagcagaa ggaaggcaga aggccttttc cacatgtggg
                                                                               780
     43 teccatetqa caqetqteat tatattetat ggtaetetqa tetteatgta teteagaegt
                                                                               840
     44 cccacaqaqq aqtctgtgga gcaggggaag atggtggctg tgttctatac cacagtgatc
     45 cccatgttga atcccatgat ctacagtctg aggaacaagg atgtgaaaaa ggccatgatg
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     46 aaagtgatca gcagatcatg ttaa
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     55 cctcagctgg agctagtect ctttgtggtt cttttgatet tetatatett caetttgetg
                                                                               180
     56 gggaacaaaa ccatcattgt attatctcac ttggacccac atcttcacac tcctatgtat
     57 titttettet ceaacetaag ettittggat etgigtiaca caaceggeat igiteeacag
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| | | | atctcagggg | | | | | 300 |
|----|-------|------------|---------------|-------------|-------------|--------------|--------------|------------|
| | | | ctctaggctt | | | | | 360 |
| | | | cagctgtttg | | | | | 420 |
| | | | tggcttctac | | | | | 480 |
| | | | tgcttttaac | | | | | 540 |
| | | | tgctcaagct | | | | | 600 |
| | | | tcattattct | | | | | 660 |
| | | | cagtcatgag | | | | | 720 |
| | | | acctcacagt | | | | | 780 |
| | | | acaactactc | | | | | 840 |
| | | | tgatcaaccc | | | acaaggatgt | gaaaggagca | 900 |
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| | | 210> SEQ 1 | | | | | | |
| | | 211> LENGT | | | | | | |
| | | 212> TYPE: | | | | | | |
| | | | NISM: Homo s | sapiens | | | | |
| | | 220> FEATU | | _ | | | | |
| | | | /KEY: misc_f | | | | | |
| | | | FION: (1) | | | | | |
| | | | R INFORMATIO | ON: n=a, c | g, or t | | | |
| | | 00> SEQUE | | | | | | 60 |
| | | | gaaatcactc | | | | | 60 |
| | | | agctcccct | | | | | 120 |
| | | | gcatgatcac | | | | | 180 |
| | | | gcaatctgtc | | | | | 240 |
| | | | actttgtgtc | | | | | 300 |
| | | | tccttgtttt | | | | | 360 |
| M> | 88 ga | ccgctatg | ttgncntctg | ccaccctttg | ctttacaaca | tcattatgtc | tcatcacacc | 420 |
| | 89 tg | cctgctgc | tggtggctgt | ggtctacgcc | atcggactca | ttggctccac | aatagaaact | 480 |
| | | | taaaactgcc | | | | | 540 |
| | | | tgaagctgtc | | | | | 600 |
| | | | tcaacatcat | | | | | 660 |
| | | | tcctcggcat | | | | | 720 |
| | | | ttgcagccgt | | | | | 780 |
| | 95 cc | ctccacaa | tcagttcctt | gacccaggag | aatgtggcct | ctgtgttcta | caccacggta | 840 |
| | | | tgaatcccct | | ctgaggaaca | aggaagtaaa | ggctgccgtg | 900 |
| | | | tgaggggtaa | actgttttga | | | | 930 |
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| | | (211> LENC | | | | | | |
| | | 212> TYPE | | | | | | |
| | | | ANISM: Homo | sapiens | | | | |
| | | (400> SEQU | | | | | - +++++ | 60 |
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| | | | | | | | tccaatctac | 240 |
| | | | | | | | c catgccccag | 300 |
| | 109 9 | ctttggtg | c attiguttete | cacccatcc | tacctctcti | alcoccgato | tttggctcaa | 360 |
| | IIU a | cgagtgtct | corregerti | ggccacagca | a gagigeete | : tactggctgc | c catggcctat | 420 |
| | 111 d | accgtgtg | y tigotatoa | j caatcccct | gegttatteag | y Lggitatgaa | a tggcccagta | 420 |
| | | | | | | | | |

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| 112 | tgtgtctg | ct t | ggtt | gcta | c ct | tcato | gggg | g aca | atcad | cttg | tgct | cact | .gc | catgo | ctcatc | 480 |
|-----|----------|------|------|-------|---------|------------|-------|-------|-------|------|------|-------|-----|-------|--------|-----|
| 113 | ctatccct | ga g | gctt | cact | t ct | tgtgg | gggct | aat | gtca | atca | acca | atttt | .gc | ctgt | gagatt | 540 |
| 114 | ctctccct | ca t | taac | gctga | c ct | tgtto | ctgat | acc | cage | ctca | atga | attt | at | gatco | ctcatc | 600 |
| 115 | accagtat | ct t | caco | cctgc | et go | ctaco | catt | ggg | gttt | gttc | tcct | ctcc | cta | catao | gaatt | 660 |
| 116 | gctatggc | ta t | cata | agga | t to | cgcto | cacto | cag | gggc | aggc | tcaa | aggco | ctt | tacca | catgt | 720 |
| 117 | ggctctca | cc t | gaco | egtgg | rt ga | acaat | ctto | tat | gggt | tcag | ccat | ctcc | cat | gtata | atgaaa | 780 |
| | actcagtc | | | | | | | | | | | | | | | 840 |
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| | aggaaagt | - | - | | - | | - | | | | | | | | | 927 |
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| | <211> LE | | | | | | | | | | | | | | | |
| | <212> TY | | | | | | | | | | | | | | | |
| | <213> OR | | | Homo | sap | oiens | 3 | | | | | | | | | |
| | <400> SE | | | | • | • | | | | | | | | | | |
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| | ggcctgga | | | | | | | | | | | | | | | 120 |
| | ctgcttgg | | | | | | | | | | | | | | | 180 |
| | atgtacct | | | | | | | | | | | | | | | 240 |
| | cccaaaat | | | | | | | | | | | | | | | 300 |
| | gcccagat | | | | | | | | | | | | | | | 360 |
| | gcctttga | | | | | | | | | | | | | | | 420 |
| | tccctcat | | | | | | | | | | | | | | | 480 |
| | ctcccctt | | | | | | | | | | | | | | | 540 |
| 137 | tgtgaaca | ca t | aact | ataa | rt. cra | agact | aaco | r tat | aaaa | raca | ctac | actto | caa | caata | itctat | 600 |
| | ggcatcgc | | | | | | | | | | | | | | | 660 |
| | atctttat | | | | | | | | | | | | | | | 720 |
| | gggacatg | | | | | | | | | | | | | | | 780 |
| | tcagtcat | | | | | | | | | | | | | | | 840 |
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| | Met Leu | | | | Asp | Val | Thr | Glu | Phe | Ile | Leu | Leu | Gly | Leu | Thr | |
| 152 | 1 | | | 5 | • | | | | 10 | | | | - | 15 | | |
| | Ser Arg | Arg | Glu | Trp | Gln | Val | Leu | Phe | Phe | Ile | Ile | Phe | Leu | Val | Val | |
| 154 | | , | 20 | - | | | | 25 | | | | | 30 | | | |
| | Tyr Ile | Ile | Thr | Met | Val | Gly | Asn | Ile | Gly | Met | Met | Val | Leu | Ile | Lys | |
| 156 | - | 35 | | | | _ | 40 | | • | | | 45 | | | - | |
| | Val Ser | | Gln | Leu | Asn | Asn | | Met | Tyr | Phe | Phe | Leu | Ser | His | Leu | |
| 158 | 50 | | | | | 55 | | | 1 | | 60 | | | | | |
| | Ser Phe | Val | Asp | Val | Trp | | Ser | Ser | Asn | Val | | Pro | Lys | Met | Leu | |
| 160 | | | | | 70 | | | | | 75 | | | 1 - | | 80 | |
| | Glu Asn | Leu | Phe | Ser | | Lys | Lvs | Thr | Ile | | Tyr | Ala | Gly | Cys | | |
| 162 | | | | 85 | - 1 | 1 - | 1 - | | 90 | | 4 | | 1 | 95 | | |
| | Val Gln | Cvs | Phe | | Phe | Ile | Ala | Leu | | His | Val | Glu | Ile | Phe | Ile | |
| 164 | | 4 | 100 | | | | | 105 | | | | | 110 | | | |
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| 165 166 | Leu | Ala | Ala 115 | Met | Ala | Phe | Asp | Arg 120 | Tyr | Met | Ala | Ile | Gly 125 | Asn | Pro | Leu |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|
| 167 168 | Leu | Tyr 130 | Gly | Ser | Lys | Met | Ser 135 | Arg | Val | Val | Cys | Ile 140 | Arg | Leu | Ile | Thr |
| 169 170 | | Pro | Tyr | Ile | Tyr | Gly 150 | Phe | Leu | Thr | Ser | Leu 155 | Ala | Ala | Thr | Leu | Trp 160 |
| 171 172 | Thr | Tyr | Gly | Leu | Tyr 165 | Phe | Cys | Gly | Lys | Ile 170 | Glu | Ile | Asn | His | Phe 175 | Tyr |
| 173 174 | Cys | Ala | Asp | Pro 180 | Pro | Leu | Ile | Lys | Met 185 | Ala | Cys | Ala | Gly | Thr 190 | Phe | Val |
| 175 176 | Lys | Glu | Tyr 195 | Thr | Met | Ile | Ile | Leu 200 | Ala | Gly | Ile | Asn | Phe 205 | Thr | Tyr | Ser |
| 177 178 | Leu | Thr 210 | Val | Ile | Ile | Ile | Ser 215 | Tyr | Leu | Phe | Ile | Leu 220 | Ile | Ala | Ile | Leu |
| | Arg 225 | Met | Arg | Ser | Ala | Glu 230 | Gly | Arg | Gln | Lys | Ala 235 | Phe | Ser | Thr | Cys | Gly 240 |
| 181 182 | Ser | His | Leu | Thr | Ala 245 | Val | Ile | Ile | Phe | Tyr 250 | Gly | Thr | Leu | Ile | Phe 255 | Met |
| 183 184 | Tyr | Leu | Arg | Arg 260 | Pro | Thr | Glu | Glu | Ser 265 | Val | Glu | Gln | Gly | Lys 270 | Met | Val |
| 185 186 | Ala | Val | Phe 275 | Tyr | Thr | Thr | Val | Ile 280 | Pro | Met | Leu | Asn | Pro 285 | Met | Ile | Tyr |
| | Ser | Leu 290 | Arg | Asn | Lys | Asp | Val 295 | Lys | Lys | Ala | Met | Met 300 | Lys | Val | Ile | Ser |
| 189 190 | _ | Ser | Cys | | | | | | | | | | | | | |
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| 193 | <213 | 1> LE | ENGT | H: 32 | 12 | | | | | | | | | | | |
| | | 2> T | | | | | | | | | | | | | | |
| | | | | ISM: | | sap | piens | 3 | | | | | | | | |
| | | | | NCE: | | ~ 1 | ~ | | -1 | m1 | a 2 | 5 1 | -1 - | . | T | G1 |
| 199 | 1 | | | | 5 | | | Ser | | 10 | | | | | 15 | |
| 201 | | | | 20 | | | | Glu | 25 | | | | | 30 | | |
| 203 | | | 35 | | | | | Leu 40 | _ | | _ | | 45 | | | |
| 205 | | 50 | | | | | 55 | His | | | | 60 | | | | |
| 207 | 65 | | | | | 70 | | Cys | | | 75 | | | | | 80 |
| 209 | | | | | 85 | | | Ala | | 90 | | | | | 95 | |
| 210 211 | Cys | Val | Val | Gln 100 | Leu | Tyr | Ile | Ser | Leu 105 | Gly | Leu | Gly | Ser | Thr 110 | Glu | Cys |
| | | _ | _ | | _ | | Val | Dho | Acn | λra | Tur | Ala | Δla | Val | Cure | Δνα |
| 212 | Val | Leu | Leu 115 | Gly | Val | мет | vai | 120 | пар | Arg | 1 Y 1 | mu | 125 | vai | СУЗ | nry |

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| 217 | Ala | Ser | Thr | Ser | Trp | | Ile | Gly | Phe | Ala | | Ser | Leu | Leu | Gln | |
|--|---|---|--|---|---|---------------------------------|---------------------------------------|--|--|---|---|---------------------------------------|--|------------------------------------|--|---------------------------------------|
| | 145 | - | ~1 - | . | T | 150 | mla | T | C | a 1 | 155 | 3 ~ ~ | T | T 0 | C1 | 160 |
| 218 | Val | Leu | шe | Leu | 165 | Leu | THI | Leu | Cys | 170 | Arg | ASII | гуѕ | Leu | 175 | птэ |
| | Phe | Len | Cvs | Glu | | Pro | Pro | Leu | Leu | | Leu | Ala | Cvs | Val | | Thr |
| 221 | 1 110 | Lea | CIS | 180 | , uı | 110 | 110 | 200 | 185 | | 200 | | 012 | 190 | | |
| | Thr | Met | Asn | | Ser | Glu | Leu | Phe | | Val | Ser | Val | Ile | Ile | Leu | Leu |
| 223 | | | 195 | | | | | 200 | | | | | 205 | | | |
| | Val | Pro | Val | Ala | Leu | Ile | Ile | Phe | Ser | Tyr | Ser | Gln | Ile | Val | Arg | Ala |
| 225 | | 210 | | | | | 215 | | | | | 220 | | | | |
| 226 | Val | Met | Arg | Ile | Lys | Leu | Ala | Thr | Gly | Gln | | Lys | Val | Phe | Gly | |
| | 225 | | | | | 230 | | | | | 235 | | | _, | _ • | 240 |
| | Cys | Gly | Ser | His | | Thr | Val | Val | Ser | | Phe | Tyr | Gly | Thr | | He |
| 229 | _ | | | . | 245 | D | a 1 | 3 | 3 | 250 | C | <i>C</i> 1- | 1 00 | C1 5 | 255 | Tura |
| | Tyr | Ala | Tyr | ьеи 260 | GIN | Pro | СТУ | ASII | 265 | TAL | ser | GIII | ASP | 270 | СТА | гуѕ |
| 231 | Phe | Tlo | Sar | | Dho | Фur | Thr | τlρ | | Thr | Pro | Met | Tle | | Pro | Len |
| 233 | File | 116 | 275 | пец | rne | 1 Y 1 | 1111 | 280 | 110 | 1111 | 110 | 1100 | 285 | 11011 | | Dea |
| | Ile | Tvr | | Leu | Arg | Asn | Lvs | | Val | Lys | Gly | Ala | | Lys | Lys | Val |
| 235 | | 290 | | | , | | 295 | - | | • | - | 300 | | - | _ | |
| 236 | Leu | Trp | Lys | Asn | Tyr | Asp | Ser | Arg | | | | | | | | |
| 237 | 305 | | | | | 310 | | | | | | | | | | |
| 239 | <210 |)> SI | EQ II | ON C | : 8 | | | | | | | | | | | |
| | <211 | | | | 9 | | | | | | | | | | | |
| | < 211 | 2> TY | 7 D Fr • | ידים מ | | | | | | | | | | | | |
| 241 | | | | | | | | _ | | | | | | | | |
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| 242 244 | <213 <220 | 3> OI 3> FI | RGAN: EATUI | ISM: RE: | | | piens | 5 | | | | | | | | |
| 242 244 245 | <213 <220 <221 | 3> 01 0> F1 1> NA | RGANI EATUI AME/I | ISM: RE: KEY: | VAR: | IANT | | 5 | | | | | | | | |
| 242 244 245 246 | <213 <220 <221 <222 | 3> OF 0> FF 1> NF 2> LO | RGANI EATUI AME/I OCATI | ISM: RE: KEY: ION: | VAR: | IANT (3 | 309) | | ny ar | nino | acio | i | | | | |
| 242 244 245 246 247 | <213 <220 <223 <223 <223 | 3> 01 0> F1 1> NA 2> L0 3> 0 | RGANI EATUI AME/I DCATI THER | ISM: RE: KEY: ION: INF(| VARI (1) ORMAI | IANT (3 | 309) | | ny ar | nino | acio | i | | | | |
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| 242 244 245 246 247 249 250 251 | <213 <220 <223 <223 <223 <400 Met | 3> OF STATE | RGANI EATUI AME/I DCATI THER EQUEI Ala | ISM: RE: KEY: ION: INFO NCE: Gly | VAR (1) ORMA 8 Asn 5 | IANT(3 IION | 309) : Xaa Ser | a= an Thr | Val | Thr | Glu | Phe | | | 15 | |
| 242 244 245 246 247 249 250 251 252 | <213 <220 <223 <223 <223 <400 Met | 3> OF STATE | RGANI EATUI AME/I DCATI THER EQUEI Ala | ISM: RE: KEY: ION: INFO NCE: Gly | VAR (1) ORMA 8 Asn 5 | IANT(3 IION | 309) : Xaa Ser | a= an Thr | Val Leu | Thr | Glu | Phe | | Leu | 15 | |
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W-->

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/10/032,106

DATE: 04/25/2002 TIME: 15:14:48

Input Set : A:\43311-20007.00.txt

Output Set: N:\CRF3\04252002\J032106.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the $\langle 220 \rangle$ to $\langle 223 \rangle$ fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 374,376 Seq#:8; Xaa Pos. 125,126